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A NEW LEPTODACTYLID FROG FROM CHILE

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In spite of the limited fauna of Chile, its herpetological problems are of great interest. Southern Chile is one of the great centers of endemism on the South American continent, and it presents both typical relicts, often as monotypic genera, and genera that have undergone active speciation within the Chilean area. The frog fauna includes the distinctive bony-headed "bullfrog," *Calyptocephalella gayi*, the still more remarkable Darwin's frog, *Rhinoderma darwini*, in which the tadpoles are brought to maturity in the hypertrophied vocal pouch of the male, the long-limbed *Hylorina silvatica*, and perhaps *Batrachyla leptopus* as monotypic forms. There are several species of the Andean genus *Telmatobius*, two of *Pleurodema*, a variety of toads of the genus *Bufo*, and a flowering of the genus *Eupsophus* into an as yet undetermined number of species.

It is gratifying to add to the Chilean fauna a species of frog whose evident relations are with the *Telmatobius* but whose divergence from that genus appears to warrant generic distinction. We are indebted to Dr. D. S. Bullock of El Vergel, Angol, Chile, for the two specimens of this frog, collected in the Nahuelbuta forest.

I am indebted to my colleague Mr. Henry S. Dybas for the examination of the stomach contents, to Mr. Albert A. Enzenbacher for the habitus drawing of the type, and to Miss Phyllis Wade for the drawing of the pectoral girdle. It is pleasant to name the new form for Dr. Bullock, in recognition of his services to Chilean natural history and of his long-continued friendly co-operation with Chicago Natural History Museum.

Telmatobufo gen. nov.

Diagnosis.—A leptodactylid frog of toad-like habitus but with broadly webbed toes; with maxillary and vomerine teeth; vertically

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oval pupil; tympanum absent; fingers free, the tips of the fingers and toes not dilated; terminal phalanges simple; the outer metatarsals united; epicoracoid cartilage very broad; sternum a broad cartilaginous plate; dorsal skin with raised rounded glands; prominent parotoid glands present.

Type.—*Telmatobufo bullocki* sp. nov.

Telmatobufo bullocki sp. nov.

Type.—Chicago Natural History Museum no. 23842, adult male, from Cerros de Nahuelbuta, Province of Malleco, Chile, collected by D. S. Bullock, October 12, 1931.

Diagnosis.—A frog with stocky body but relatively long limbs; extremely glandular dorsal skin; high, rounded parotoid glands; fingers free, without expansions at their tips; toes broadly webbed; a well-developed gland on the forearm; general color mottled grayish brown, with darker spots corresponding to the elevated glands.

Description of type.—Body stocky, width of head $2\frac{1}{4}$ times in length of body; tibio-tarsal articulation reaching eye; proximal joint of arm largely enclosed in body skin; heels meeting when hind limbs are placed at right angles to body.

Tongue circular, free behind; six large vomerine teeth on each side, in prominent elevated patches behind the level of the moderate-sized choanae (0.8 mm. in diameter).

Fingers free, without subarticular tubercles, the first shorter than the second, their tips not expanded; toes broadly webbed, the web extending to the tip of the fourth toe as a marginal flap; fifth toe broadly glandular on outer side; inner metatarsal tubercle small; no outer metatarsal tubercle; a glandular tarsal fold.

Dorsal skin with numerous raised smooth glandular warts, interspersed with small low warts; prominent parotoid glands, longer than the eye, just behind the posterior angle of the eye; ventral skin perfectly smooth; a prominent gland on anterior side of forearm, and glands extending on thighs and tibiae.

General color (in alcohol) dark grayish brown, the glandular warts all darker than the narrow interspaces; ventral surfaces mottled with brown on a yellowish brown ground color; upper eyelids white, yellowish in life, as seen in a Kodachrome slide supplied by Dr. Bullock.

Notes on paratype.—The single paratype, C.N.H.M. no. 31618, obtained by Dr. Bullock from the same locality on November 27,

1936, has a somewhat different preservation and its glandular warts are less prominent; otherwise it is a smaller replica of the type. The curious, boldly marked white eyelids, which might be thought to be a pathological character, are exactly duplicated in the paratype.



FIG. 1. *Telmatobufo bullocki* sp. nov., type; $\times 1$.

Comparisons.—I assume that *Telmatobufo* is most nearly related to *Telmatobius*. The new form does not appear to be closely allied to any of the species of *Telmatobius*, all of which have strongly developed spines at least on the first finger in males. The Chilean species of *Telmatobius* (after deletion of *marmoratus* by Barbour and Noble, 1920) include the type of the genus, *peruvianus*, from Tacna (which was formerly a Department of Peru); *Telmatobius halli*,

from Ollague; *T. laevis*, from Santiago Province; and *T. montanus*, from the same province (probably from Potrero Grande, 2,200 meters).

Remarks.—It is somewhat surprising that so distinct a form should have escaped detection in the relatively well-known Chilean fauna, to which it adds a further distinctive endemic form. Dr. Bullock's notes state that one of the specimens was found under

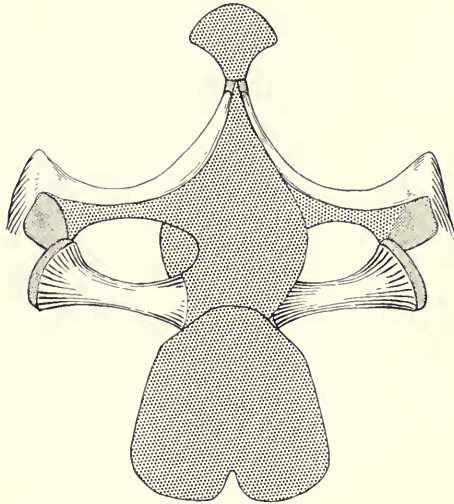


FIG. 2. Pectoral girdle of *Telmatobufo bullocki*, C.N.H.M. no. 31618; $\times 2.5$.

a log. The stomach contents of the paratype include a beetle larva, fragments of two cockroaches, fragments of three phalangids, a spider, and miscellaneous fragmentary insect remains, with a considerable mass of plant material, all of which indicate terrestrial feeding habits.

MEASUREMENTS OF TYPE AND PARATYPE

	No. 23842 mm.	No. 31618 mm.
Length of body.....	63	64
Length of head.....	28	28
Length of leg.....	88	90
Tibia.....	27	28

REFERENCES

BARBOUR, THOMAS, and NOBLE, G. K.

1920. Some amphibians from northwestern Peru, with a revision of the genera *Phyllobates* and *Telmatobius*. Bull. Mus. Comp. Zool., 63: 395-427, pls. 1-3, text figs. 1-8.

MÜLLER, LORENZ

1938. Beiträge zur Kenntnis der Herpetofauna Chiles. X: Ueber ein Exemplar *Telmatobius montanus* Philippi. Zool. Anz., 121: 313-317, figs. 1-2.

SCHMIDT, KARL P.

1928. The Chilean frogs of the genus *Telmatobius*. Rev. Chilena Hist., 32: 98-105.